

IMPROVED SYSTEM AND METHOD FOR INTRALUMINAL IMAGING

ABSTRACT OF THE DISCLOSURE

5 An improved catheter system having an ultrasonic imaging transducer coupled
to a drive cable disposed within a lumen of a flexible tubular catheter body. An improvement
including a reconfiguration of the ferrites in the hub assembly, such that the need for the gap
between the ferrites is removed. A strain relief member is provide to increase the strength of
the electrical transmission lines to enable them to withstand the tensile forces caused by
either flushing and/or pull-back operations. A device which allows the electrical
10 transmission lines to extend their length when placed in tension may also be employed to
provide strain relief to the electrical transmission lines. Another improvement includes a
counter-wound coil structure, which may either expand or contract as the drive cable is being
rotated to strengthen the drive cable. The distal tip of the catheter body may be redesigned to
provide a lumen which allows for the release of flushing fluids through a distal port in the
15 guidewire lumen.

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